Methods: Clinical data and MMP-3 levels were recorded prospectively for 278 RA patients over a 5-year period. The mean (sd) age of the cohort was 59 (9.9) years with a disease duration of 11(9.2) years and 187 (67%) of the cohort were female.
Results: Significantly higher levels of MMP-3 were found at baseline for those patients who required a joint replacement during the five year follow up period (n=49) than those that did not: median (IQR) MMP-3 level (27,050 (37,146) vs. 19,892 (18,894), p =0.005). No significant difference was found between baseline MMP-3 levels and having a joint replacement prior to the start of the study (n=32): median (IQR) MMP-3 level (25,705 (21,283) vs. 20,031 (20,258), p =0.25).
Conclusions: High levels of MMP-3 are associated with future joint replacement of the hip or knee in RA patients.

1275: THE EFFECTS OF SOCS7 KNOCKDOWN IN BREAST CANCER CELLS: THEIR IN VITRO RESPONSE TO HEPATOCYTE GROWTH FACTOR (HGF)

Walid Sasi [1,*], Lin Ye [2], Wen G. Jiang [2], Anup K. Sharma [1], Kefah Mokbel [1]. [1] *St George's, University of London, London, UK;* [2] *Cardiff University, Cardiff, UK.*

Introduction: Phospholipase Cγ-1 (PLCγ-1) is an important Hepatocyte Growth Factor (HGF) receptor (C-MET) downstream mediator, and recent evidence showed that Suppressor of Cytokine Signalling 7(SOCS7) - a member of the SOCS family - interacts with PLCγ-1. Here, we aimed to investigate SOCS7 knockdown effect on breast cancer cellular growth and migratory responses to HGF treatment, and whether this involves HGF-PLCγ-1 pathway using the PLCγ-1 blocker U73122.
Methods: Two breast cancer cell lines (MCF7 and MDA-MB-231) were transfected with anti-SOCS7 ribozymal transgene, creating sublines with SOCS7 knockdown ($MCF7^{\Delta SOCS7}$ and $MDA\text{-}MB\text{-}231^{\Delta SOCS7}$), verified by RT-PCR. The growth and migration of the cells were evaluated with and without HGF and U73122 pre-treatment using growth assay, scratch-wound and Electrical Cell Impedance Sensing (ECIS) migration assays.
Results: Under basic conditions, both $MCF7^{\Delta SOCS7}$ and $MDA\text{-}MB\text{-}231^{\Delta SOCS7}$ cells showed higher growth and migration compared to control cells. Additionally SOCS7 knockdown appeared to synergistically enhance their growth and migratory responses to HGF. U73122 pre-treatment was found to abrogate this synergistic effect.
Conclusions: HGF pre-treatment and SOCS7 knockdown have a synergistic effect on the growth and migration of MCF7 and MDA-MB-231 cells. This is lost with pre-treatment with U73122, an alternative PLCγ-1 blocker, indicating a precise anti-PLCγ-1 regulatory role for SOCS7.

Breast surgery

0008: USE OF AUTOLOGOUS FAT GRAFTING FOR RECONSTRUCTION POST-MASTECTOMY AND BREAST CONSERVING SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS

Riaz Agha [*,1], Alexander Fowler [2], Christian Herlin [3], Tim Goodacre [4], Dennis Orgill [5]. [1] *Department of Plastic Surgery, Stoke Mandeville Hospital, UK;* [2] *Barts and the London School of Medicine and Dentistry, QMUL, London, UK;* [3] *CC-AH en chirurgie plastique, reconstructrice et esthétique, Montpellier, France;* [4] *Department of Plastic Surgery, John Radcliffe Hospital, Oxford, UK;* [5] *Division of Plastic Surgery, Brigham and Women's Hospital, Boston, Massachusetts, USA.*

Introduction: There is growing interest in the potential of autologous fat grafting (AFG) for breast reconstruction. However, concerns remains regarding its effectiveness, safety and interference with mammography.
Methods: A protocol was published a priori. All studies investigating AFG for women undergoing reconstruction post surgery for treatment of breast cancer were considered. We assessed six domains; Oncological, clinical, aesthetic/functional, patient reported, process and radiological. Electronic databases and grey literature sources were searched to June 2013.
Results: 31 studies were included in this review (3,521 patients). Fat necrosis is the commonest reported complication at 4.4% (the majority was managed conservatively). Other harms include the anxiety caused by the need for further radiological investigation through interval mammograms (11.5%) and the need for biopsy (2.5%) to exclude malignancy. The weighted mean recurrence rate was 4.4% at a median of 18.3 months. Random effects Meta-analysis showed no significant difference (p=0.10). We were unable to comment from the data on whether AFG is more successful in combination with other techniques or alone.
Conclusions: The need for long-term follow up is underscored by this review. High quality research is required to demonstrate long-term oncological ramifications and to determine the potential for AFG as a total breast reconstruction.

0244: AN EVALUATION OF THE CORRELATION BETWEEN PRIMARY TUMOUR AND LYMPH NODE RESPONSE FOLLOWING NEOADJUVANT THERAPY IN BREAST CANCER

C.A. Fleming [*], K.N. McCarthy, M.J. O'Sullivan, H.P. Redmond, M.A. Corrigan. *Breast Research Centre, Cork University Hospital, Cork, Ireland.*

Introduction: Neoadjuvant therapy (NAT) offers an opportunity to assess tumour response to systemic agents. However discrepancy may exist between response of primary tumour & involved nodes. This study sought to assess the frequency of discordance in this response post NAT.
Methods: All node positive patients receiving NAT at Cork University Hospital, Republic of Ireland from 2009-2012 were identified. Basic demographics, radiological & pathological features were tabulated & analysed. Nodal response was estimated from standard pathological response to treatment measurements. Statistical analysis was performed.
Results: 66 node positive patients had completed surgery & were eligible for inclusion. Median age was 50 years, all patients underwent axillary clearance and 64% underwent mastectomy. There was an overall positive correlation between tumour and lymph node (LN) response following NAT (Spearman correlation coefficient 0.541, p<0.001). Eleven patients achieved a LN complete pathological response (CPR) with all having a CPR in tumour also. A CPR in the tumour predicted complete nodal response in 73% of cases.
Conclusions: While overall correlation was seen, 27% of primary tumours with CPR had persistently positive LN's. This represents a significant discordance that may be due to biomolecular differences and represents a concern for the potential lack of response of occult systemic metastasis to NAT.

0333: BREAST CANCER, WHAT WOULD YOU CHOOSE? – A SURVEY OF HEALTH PROFESSIONALS

Emma Woolley [*,1], Mohammed Elsayed [1], Michael Carr [2], Ludger Barthelmes [1]. [1] *North Cumbria University Hospitals Trust, Cumbria, UK;* [2] *Northumbria NHS Trust, Northumbria, UK.*

Introduction: To investigate whether medical professionals, when confronted with a breast cancer diagnosis, would ignore evidence-based medicine in favour of personal preference. Compare the opinion of the breast team with the actual treatment chosen by their patients.
Methods: Anonymous questionnaire with 3 scenarios given to all (39) members of the regional MDT and comparison made with patients' treatment choices.
Results: For a 10 mm, grade 1 cancer 82 % (32/39) of health professionals favoured WLE over mastectomy, compared to 51 % (31/60) of patients (p=0.003). For a 25mm, grade II, invasive cancer 55% (21/38) of medical professionals favoured WLE compared to 49% (28/57) of patients (p=0.67). For 60mm, high grade DCIS, 26% (10/39) of health professionals would chose mastectomy without reconstruction, compared to 75 % (9/12) of patients (p=0.005). Following a mastectomy, 74 % of health professionals would have reconstruction: 28 % immediately, 46 % delayed; whilst of the 25 % of patients with reconstructions all had immediate reconstruction.
Conclusions: A significant majority of health professionals would choose WLE for grade I and II invasive ductal carcinoma compared to their patients' treatment choices. For 60mm DCIS, health professionals were more three times more likely than their patients to choose reconstruction.

0388: THE UTILISATION OF MAGNETIC RESONANCE IMAGING IN THE INVESTIGATION OF INVASIVE LOBULAR CARCINOMA – A RETROSPECTIVE STUDY IN TWO DISTRICT GENERAL HOSPITALS

Mina Derias [*], Ashok Subramanian, Simon Allan, Elizabeth Shah, Hassan El-Teraifi, David Howlett. *East Sussex Healthcare, Eastbourne, UK.*

Introduction: Invasive lobular carcinoma (ILC) accounts for 10% of breast cancers and is associated with multifocal and contralateral breast involvement. The National Institute of Clinical Excellence (NICE) guidelines (2009) recommended the use of Magnetic Resonance Imaging (MRI) in the preoperative assessment of ILC. This study aims to assess compliance with guidelines in two District General Hospitals and the utility of MRI in the investigation of ILC.
Methods: All cases of ILC between 2011 and 2013 were retrospectively identified from the pathology database and their breast imaging findings were reviewed.
Results: 107 patients had ILC, of these 41 had MRI preoperatively (38%). MRI upgraded mammography/ultrasound diagnoses in 8 patients (19.5%). MRI showed multifocal disease in 13 patients (31.7%) occult on ultrasound/mammogram, with these patients undergoing mastectomy. MRI showed a contralateral lesion in 9 patients, 4 (9.8%) of which were ILC (5 benign) with these patients having bilateral surgery. MRI also downgraded 4 (9.8%) patients to unifocal disease with reported multifocal appearances on mammography/ultrasound, and MRI findings were confirmed histologically.
Conclusions: MRI is highly accurate in the diagnosis of both multifocal and contralateral disease in ILC and should be undertaken in all such cases preoperatively assuming no contraindication.

0530: RATE OF RE-INTERVENTION FOLLOWING BREAST CANCER TREATMENT WITH THERAPEUTIC ROUND BLOCK MAMMOPLASTY: 7 YEARS SINGLE CENTRE EXPERIENCE

Jason On*, Elaine Yeap, Shailesh Chaturvedi. *Aberdeen Royal Infirmary, Aberdeen, UK.*

Introduction: Wide local excision has been the procedure of choice for breast-conserving surgery in patients with breast cancer. This can sometimes result in less than an ideal cosmetic outcome for the patient such as loss of volume in the breast. Therapeutic round block mammoplasty (RBM) is a technique that can be used to improve these cosmetic outcomes. The aim of this study is to look at the need for re-intervention following RBM.
Methods: Tumour size, grade and other patient factors were collected in conjunction with the outcome following RBM from the period between September 2006 and October 2013.
Results: 54 eligible patients were included in this study. 10 patients (18.5%) had pathology results of at least a single margin involvement or a margin clearance of <1mm. 9 patients had invasive ductal carcinoma and 1 with invasive lobular carcinoma, all of grades 2 and 3. The average tumour size is 30.1mm. 6 patients subsequently had a second procedure, 3 each had mastectomy and re-excision of margins. Therefore, the overall risk of re-intervention is approximately 11% following RBM.
Conclusion: Round block mammoplasty should be considered as an alternative for patients suitable for breast-conserving surgery as it has an acceptable rate of re-intervention.

0652: VENOUS THROMBOEMBOLISM PROPHYLAXIS IN BREAST SURGERY – WHAT ARE WE DOING?

Jake Sloane*, Sophie Helme, Jennifer Hu. *St Bartholomew's Hospital, London, UK.*

Introduction: In breast surgery there is a balance of risk between venous thromboembolism (VTE) and post-operative haematoma. The NICE guidelines (2010) state that all cancer surgery patients should be given mechanical and pharmacological prophylaxis unless contraindicated. In the absence of national guidelines specific to Breast surgery we sought to ascertain what current practice is within the UK.
Methods: A web-based survey was sent to surgeons within the 199 Breast Units in the UK.
Results: Responses were received from 67 units. 33% give LMWH to day-case patients and 72% to overnight patients. 27% use LMWH for high-risk patients only. Pre-operative LMWH is given routinely in 11% and in high-risk patients, 33%. Only 3% give LMWH post discharge. Surgery type influences whether patients receive LMWH - over 90% for complex reconstructive cases and 50% for wide local excisions. 67% of units use Local Trust Guidelines for General or Breast Surgery, 33% are guided by individual surgeon preference.
Conclusion: There is a wide variation in VTE prophylaxis within breast units. In over 1/3 of units, there are no local or national protocols followed. We suggest a need for national guidelines specific to Breast Surgery to help guide best practice.

0661: RESECTION MARGINS IN BREAST CONSERVING SURGERY. LESS IS MORE

Andrew McDougall*, Ahmed Hamad. *Mid Cheshire Hospitals NHS Foundation Trust, Crewe, Cheshire, UK.*

Introduction: Re-excision is performed in patients with early stage breast cancer associated with close resection margins. Re-excision of margins in breast-conserving surgery (BCS) imposes psychological, cosmetic and economic burdens and may delay adjuvant therapy. There is lack of consensus regarding what is to be considered adequate margins. The aim of this study is to critically appraise current evidence on management of close margins after BCS.
Methods: A literature review was done using PubMed and Google Scholar search engines using key words and phrases including: “breast”, “cancer”, “invasive”, “wide local excision” and “margins”. Papers published since the year 2000 were considered.
Results: Forty-seven publications were identified. Substantial variations exist in practice. The margin of normal tissue that significantly reduces the risk of local recurrence remains undefined. Tumour biology plays a more significant role. With adjuvant therapy, close margins were not associated with an increased risk of local recurrence compared to wider margins.
Conclusions: Decisions regarding resection margins in BCS should be made in the context of tumour biology, adjuvant treatment and cosmetic outcomes. With adjuvant therapy, wider margins do not reduce local recurrence compared to close margins. Additional studies and a consensus on management of surgical margins are needed.

0755: AXILLARY ULTRASOUND IN BREAST CANCER – A DGH EXPERIENCE

Abraham Joel*, Shantanu Rout, Neal Ormsby, Huw Garrod, Avier Chong, Shabbir Poonawala. *Arrowe Park Hospital, Wirral, UK.*

Introduction: Prognosis in breast cancer is primarily determined by staging the axilla most commonly by sentinel lymph node biopsy (SLNB). We aimed to look at our practice in the Wirral breast unit and compare it to national standards.
Methods: Retrospective analysis of all patients undergoing axillary ultrasound (US) at the Wirral breast unit over a 1 year period was undertaken. Data was collected from the radiology database and patient records.
Results: 371 patients with breast cancer underwent axillary US that was graded from A1 (normal) to A5 (likely malignant nodes). Of the 203 axillae that were initially coded normal, 13.7% went on to have axillary node clearance (ANC) and half had histological evidence of axillary nodal spread. In 42 patients the axilla was coded A3 of which 26.1% needed clearance and 19% had histological evidence of disease. In A4 axillae 30% underwent ANC of which 21.7% were positive and in A5 axillae 47.7% needed ANC of which 41% had disease.
Conclusions: Axillary US is the most appropriate initial test for assessing the axilla. Pick up rates in our unit compare favourably with national standards. However there still remains a significantly high false positive rate.

0800: DOES THE IMPLEMENTATION OF AN ENHANCED RECOVERY PROGRAMME IMPACT ON POST-OPERATIVE OUTCOMES IN POPULATIONS WITH SIGNIFICANT COMORBIDITY AND SOCIAL DEPRIVATION?

Ee Von Woon*, Pang Long Wong, Juliette Murray. *Wishaw General Hospital, Lanarkshire, UK.*

Introduction: In Lanarkshire (Scotland), the Enhanced Recovery Programme (ERP) was introduced in Wishaw General Hospital in 2012 but has yet to be extended to neighbouring Monklands Hospital. We audited the impact of the ERP between these district general hospitals, which are both in areas of significant social deprivation.
Methods: All patients who underwent breast surgery from August 2012 to August 2013 inclusive were identified from a prospectively collected electronic database. Parameters analysed included length of postoperative stay, rate of post-operative complications and re-admissions. The relative social deprivation of patients was calculated with the Scottish Index of Multiple Deprivation 2012.
Results: 294 and 152 patients underwent 336 and 161 breast operations in Wishaw and Monklands respectively. The mean postoperative stay and